

April 27, 2007



U.S. Department  
of Transportation

400 Seventh Street, S.W.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 14170  
(SECOND REVISION)

EXPIRATION DATE: March 31, 2011
---------------------------------

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: General Dynamics Armament & Technical Products  
Lincoln, NE
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, marking, sale and use of a non-DOT specification, aluminum-lined fiberglass reinforced plastic cylinder for the transportation in commerce of the materials authorized by this special permit. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with use as an aircraft component, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302a and 173.305 in that the use of a non-DOT specification, aluminum-lined fiberglass reinforced plastic cylinder is not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of General Dynamics Armament & Technical Products dated April 26, 2007, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Material Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Nitrogen, compressed	2.2	UN1066	N/A
Helium, compressed	2.2	UN1046	N/A
Compressed gas, n.o.s.	2.2	UN1956	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are non-DOT specification aluminum-lined fiberglass reinforced plastic cylinders specifically designed by the U.S. Air Force for the F-111 aircraft. Cylinders must be fabricated and tested in accordance with General Dynamics Specification ZK04338C, revised January 18, 1995 on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). Cylinder valve assemblies must be equipped with a burst disc pressure relief device designed to rupture at between 7100 and 7600 psig. In the event of extreme temperatures, the cylinder pressure relief device must be activated by a pyrotechnic device (consisting of a detonating fuse and a valve assembly authorized under EX 8305016 and EX 8402263). When installed in the cylinder, the pyrotechnic device is not regulated under the Hazardous Materials Regulations. Cylinders must conform with one of the following:

1. Design pressure of 4,000 psig. Maximum volume of 264 cubic inches.
2. Design pressure of 5,000 psig. Maximum volume of 326 cubic inches.
3. Design pressure of 4,900 psig. Maximum volume of 279 cubic inches.
4. Design pressure of 4,200 psig. Maximum volume of 187 cubic inches.

b. TESTING -

(1) Each cylinder must be proof pressure tested to at least 1.67 times the design pressure of the cylinder and must be helium leak tested in accordance with General Dynamics Specification ZK04338C.

(2) Lot acceptance testing must be in accordance with Specification ZK04338C. If any cylinder fails the lot tests, then no cylinder may be shipped until the procedures in Specification ZK04338C have been completed.

c. OPERATIONAL CONTROLS -

(1) The authorized service life of the prescribed cylinder is five years. Cylinders must be removed from service at the end of five years.

(2) Cylinders must be packaged for transportation in accordance with Air Force drawing TPO 00-835-1326 and General Dynamics drawing 880032 on file with the OHMSPA. The packaging includes a Styrofoam enclosure in a double walled cardboard container, and a temperature sensing shielded detonating cord wrapped around the inner container.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modification or change is made to the package and it is offered for transportation in conformance with this special permit and the HMR.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

- d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.
- e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.
- f. Cylinders are limited to military applications on F-111 aircraft.
- g. Each cylinder and the outside of the package must be plainly and durably marked "DOT-SP 14170" as specified in § 172.301(c).
- h. Packagings permanently marked 'DOT-E 14170', prior to October 1, 2007 may continue to be used under this special permit for the remaining service life of the packaging or until the special permit is no longer valid. Packagings marked on or after October 1, 2007 must be marked 'DOT-SP 14170'.
- i. Shipping papers displaying 'DOT-E 14170' may continue to be used until October 1, 2007, provided the special permit remains valid.
- 9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only, and passenger-carrying aircraft.
- 10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term 'exemption' to 'special permit' and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous

materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

A handwritten signature in blue ink that reads "Diane LaValle". The signature is written in a cursive style.

for Bob Richard  
Deputy Associate Administrator  
for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm) Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: CWFreeman/sln